

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P294062

Luminaire Tested: **24GR-LD5-42-A19/156-UNV-L93050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294062  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-42-A19/156-UNV-L93050-W2A1-U-5000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3810.0 lumens  
Efficiency: N/A  
Efficacy: 130.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

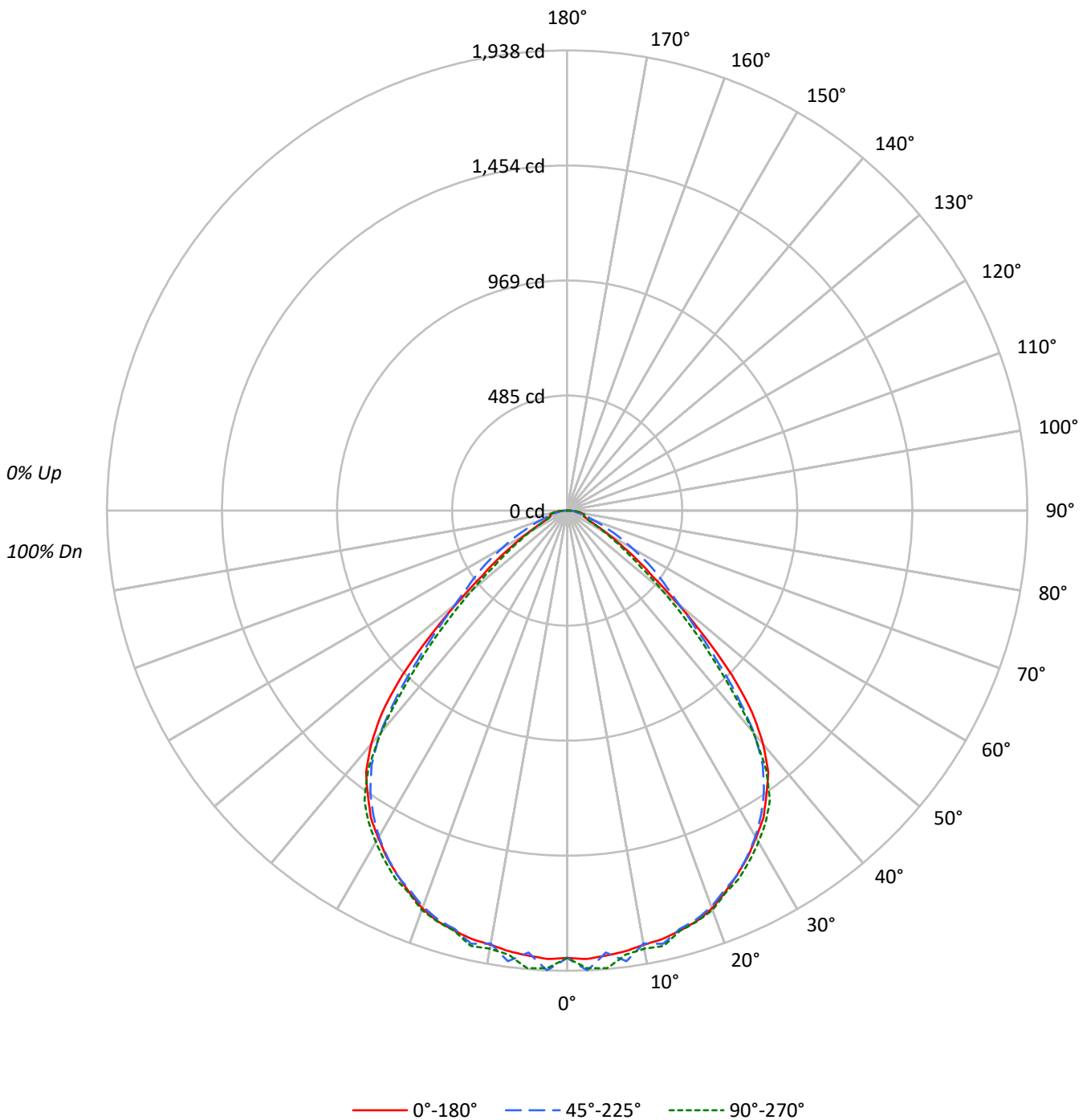
Input Watts (W): 29.168706  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2535	2535	2535
5°	2540	2524	2613
10°	2536	2529	2560
15°	2551	2542	2553
20°	2553	2542	2563
25°	2513	2515	2540
30°	2472	2464	2504
35°	2402	2373	2444
40°	2256	2155	2143
45°	1870	1692	1604
50°	1258	1283	1096
55°	830	1076	719
60°	532	850	492
65°	343	649	333
70°	303	465	303
75°	391	369	395
80°	479	318	503
85°	557	472	585



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.4	4.7
10°-20°	517.9	13.6
20°-30°	779.8	20.5
30°-40°	903.8	23.7
40°-50°	706.0	18.5
50°-60°	377.0	9.9
60°-70°	193.9	5.1
70°-80°	109.7	2.9
80°-90°	41.6	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1478.1	38.8
0°-40°	2381.9	62.5
0°-60°	3464.8	90.9
0°-90°	3810.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3810.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1884	1884	1884	1884	1884	
5°	1881	1934	1869	1920	1935	179
15°	1831	1843	1825	1837	1832	517
25°	1693	1688	1694	1692	1711	780
35°	1462	1456	1445	1473	1488	912
45°	983	983	889	881	843	741
55°	354	447	459	414	306	326
65°	108	225	204	224	105	118
75°	75	141	71	132	76	76
85°	36	47	31	47	38	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1883.9	1883.9	1883.9	1883.9	1883.9
2.5°	1890.1	1924.3	1937.8	1921.3	1928.6
5°	1880.9	1933.5	1868.6	1920.0	1934.7
7.5°	1872.3	1866.8	1913.9	1865.0	1885.8
10°	1856.4	1860.1	1850.9	1885.8	1873.5
12.5°	1849.1	1870.5	1868.6	1850.9	1877.8
15°	1831.3	1842.9	1825.2	1836.8	1832.5
17.5°	1813.6	1808.1	1806.2	1811.1	1815.4
20°	1783.0	1764.6	1775.6	1776.9	1790.3
22.5°	1738.9	1727.9	1730.4	1741.4	1742.6
25°	1693.0	1687.5	1694.3	1691.8	1710.8
27.5°	1645.3	1638.0	1642.2	1651.4	1663.1
30°	1590.9	1589.0	1586.0	1593.9	1611.7
32.5°	1537.0	1522.3	1519.9	1536.4	1556.6
35°	1462.4	1455.6	1444.6	1473.4	1488.1
37.5°	1391.4	1370.6	1352.8	1370.0	1376.1
40°	1284.3	1268.4	1226.8	1228.6	1220.1
42.5°	1152.8	1141.1	1061.6	1047.5	1023.7
45°	982.7	983.3	889.0	881.1	843.2
47.5°	785.0	819.9	737.9	728.7	672.4
50°	600.9	663.9	613.1	598.4	523.8
52.5°	450.9	543.3	527.4	495.6	392.8
55°	353.7	447.3	458.9	413.6	306.5
57.5°	266.2	368.3	387.3	350.0	236.8
60°	197.6	310.2	315.7	301.0	182.9
62.5°	146.8	263.7	256.4	258.2	135.8
65°	107.7	224.6	203.8	223.9	104.6
67.5°	88.1	194.6	158.5	194.0	85.0
70°	77.1	172.5	118.1	170.7	77.1
72.5°	74.6	158.5	93.6	151.7	75.3
75°	75.3	141.3	71.0	132.2	75.9
77.5°	69.1	116.3	53.8	112.6	72.2
80°	61.8	88.1	41.0	89.3	64.9
82.5°	52.6	64.2	33.0	66.1	54.5
85°	36.1	47.1	30.6	47.1	37.9
87.5°	17.1	28.1	19.0	26.9	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)